

IN THE CLAIMS:

Please **AMEND** the claims as follows:

1. (Currently Amended) A method for providing inheritable thread-local storage from a parent thread to a child thread, the method comprising:

for each thread-local variable, mapping each thread-local variable ~~thread~~ to a value;
and

when a parent thread creates a child thread, automatically iterating over the parent thread's inheritable thread-local values to create the child thread's initial values of one or more thread-local variables.

2. (Currently Amended) The method of Claim 1, wherein the step of mapping comprises maintaining a map, associated with each thread object, that maps each thread-local variable to a value; and the step of iterating comprises iterating over the map such that inheritable thread-local values associated with the parent thread are used to create the initial values of the one or more thread-local variables of the child thread.

3. (Currently Amended) The method of Claim 1, wherein the step of mapping comprises maintaining a map, associated with each thread-local variable, that maps each ~~thread~~ thread-local variable to a value, and wherein for each thread a linked list is maintained, the linked list linking inheritable thread-local values associated with the thread; and wherein the step of iterating comprises iterating over the linked list.

4. (Original) The method of Claim 2, wherein the map comprises a hash table.

5. (Original) The method of Claim 3, wherein the map comprises a hash table.

6. (Currently Amended) The method of Claim 1, wherein a child thread's initial value of a thread-local variable is a copy of a corresponding parent thread's value of a thread-local variable.

7. (Currently Amended) The method of Claim 1, wherein a child thread's value of a thread-local variable is a predetermined function of a corresponding parent thread's value of a thread-local variable.

8. (Currently Amended) A method for providing inheritable thread-local storage from a parent thread to a child thread, the method comprising:

for each thread-local variable, mapping each thread-local variable to a value;

when a parent thread creates a child thread, automatically iterating over the parent thread's values to create the child thread's initial values;

wherein the step of mapping comprises maintaining a map, associated with each thread object, that maps each thread-local variable to a value and wherein the step of iterating comprises iterating over the map;

wherein the map comprises a hash table;

~~The method of Claim 4,~~ wherein the step of mapping further comprises creating a separate hash table for inheritable values and a separate hash table for non-inheritable values.

9. (Currently Amended) A method for providing inheritable thread-local storage from a parent thread to a child thread, the method comprising:

for each thread-local variable, mapping each thread-local variable to a value; and

when a parent thread creates a child thread, automatically iterating over the parent thread's values to create the child thread's initial values;

wherein the step of mapping comprises maintaining a map, associated with each thread-local variable, that maps each thread to a value, and wherein for each thread a linked list is maintained, the linked list linking inheritable thread-local values associated with the thread; and wherein the step of iterating comprises iterating over the linked list;

wherein the map comprises a hash table;

~~The method of Claim 5,~~ wherein the step of mapping further comprises creating a hash table having both inheritable values and non-inheritable values, wherein each value has a flag to identify whether each value in the table is an inheritable or non-inheritable value.

10. (Original) The method of Claim 2, wherein the method is implemented in a Java programming language as a class.

11. (Original) The method of Claim 3, wherein the method is implemented in a Java programming language as a class.

12. (Currently Amended) A method for providing automatic value inheritance when a parent thread creates a child thread, the method comprising:

associating, for each thread object of the parent thread, each thread-local variable with a value; and

automatically iterating over the inheritable thread-local values of the parent thread to create a child value of a thread-local variable of a child thread corresponding to each inheritable parent value of a thread-local variable of the parent thread, when a the child

thread is created.

13. (Original) The method of Claim 12, wherein the child value is a copy of the corresponding parent value.

14. (Original) The method of Claim 12, wherein the child value is a function of the corresponding parent value.

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15. (Currently Amended) A method for providing automatic value inheritance when a parent thread creates a child thread, the method comprising:
associating, for each thread object, each thread-local variable with a value; and
automatically iterating over the thread-local values to create a child value
corresponding to each inheritable parent value, when a child is created;
~~The method of Claim 12,~~ wherein the step of associating comprises creating a separate hash table for inheritable values and a separate hash table for non-inheritable values.

16. (Currently Amended) A method for providing automatic value inheritance when a parent thread creates a child thread, the method comprising:
associating, for each thread object, each thread-local variable with a value; and
automatically iterating over the thread-local values to create a child value
corresponding to each inheritable parent value, when a child is created;
~~The method of Claim 12,~~ wherein the step of associating comprises creating a hash table having both inheritable values and non-inheritable values, wherein each value has a flag to identify whether each value in the table is an inheritable or non-inheritable value.

17. (Original) The method of Claim 12, wherein the method is implemented in a Java programming language as a class.

18. (Currently Amended) A method for providing automatic value inheritance when a parent thread creates a child thread, the method comprising:

associating, for each thread-local variable, each thread-local variable ~~thread~~ to a value, wherein for each thread a linked list is maintained, the linked list linking inheritable thread-local values associated with the thread; and

automatically iterating over the linked list to create a child value corresponding to each inheritable parent value when a child is created.

19. (Original) The method of Claim 18, wherein the child value is a copy of the corresponding parent value.

20. (Original) The method of Claim 18, wherein the child value is a function of the corresponding parent value.

21. (Original) The method of Claim 18, wherein the method is implemented in a Java programming language as a class.

22. (Currently Amended) A computer readable medium including computer program code for providing automatic value inheritance when a parent thread creates a child thread, the parent thread having at least one thread-local object value, the computer readable medium comprising:

computer program code for associating, for each thread object, each thread-local

variable with a value; and

computer program code for automatically iterating over the inheritable thread-local values of the parent thread to create a child value of a thread-local variable of a child thread corresponding to each inheritable parent value of a thread-local variable of the parent thread, when a the child thread is created.

23. (Original) The medium of Claim 22, wherein the child value is a copy of the corresponding parent value.

24. (Original) The medium of Claim 22, wherein the child value is a function of the corresponding parent value.

25. (Currently Amended) A computer readable medium including computer program code for providing automatic value inheritance when a parent thread creates a child thread, the parent thread having at least one thread-local object value, the computer readable medium comprising:

_____ computer program code for associating, for each thread object, each thread-local variable with a value; and

_____ computer program code for automatically iterating over the thread-local values to create a child value corresponding to each inheritable parent value, when a child is created;

~~The medium of Claim 22,~~ wherein the computer code for associating comprises code for creating a separate hash table for inheritable values and a separate hash table for non-inheritable values.

26. (Currently Amended) A computer readable medium including computer program code for providing automatic value inheritance when a parent thread creates a child thread, the parent thread having at least one thread-local object value, the computer readable medium comprising:

computer program code for associating, for each thread object, each thread-local variable with a value; and

computer program code for automatically iterating over the thread-local values to create a child value corresponding to each inheritable parent value, when a child is created;

~~The medium of Claim 22,~~ wherein the computer code for associating comprises computer code for creating a hash table having both inheritable values and non-inheritable values, wherein each value has a flag to identify whether each value in the table is an inheritable or non-inheritable value.

27. (Original) The medium of Claim 22, wherein the computer program code is implemented in a Java programming language as a class.

28. (Currently Amended) A computer readable medium including computer program code for providing automatic value inheritance when a parent thread creates a child thread, the parent thread referencing at least one thread local variable, the computer readable medium comprising:

computer program code for associating, for each thread-local variable, each thread-local variable ~~thread~~ to a value, wherein for each thread a linked list is maintained, the linked list linking inheritable thread local values associated with the thread; and

computer program code for automatically iterating over the linked list to create a

child value corresponding to each inheritable parent value, when a child is created.

29. (Original) The medium of Claim 28, wherein the child value is a copy of the corresponding parent value.

30. (Original) The medium of Claim 28, wherein the child value is a function of the corresponding parent value.

31. (Original) The medium of Claim 28, wherein the computer program code is implemented in a Java programming language as a class.

32. (Currently Amended) A computer system providing automatic inheritance of thread-local values of a parent thread to a child thread, the computer system comprising:


a processor; and

a computer program operating on the processor that creates child thread-local values for use by a child thread, wherein the computer program identifies one or more inheritable thread-local values associated with the parent thread and operates on the one or more inheritable thread-local values associated with the parent thread such that one or more child thread-local values are a function of the parent's inheritable thread-local values.

33. (Currently Amended) A method for providing automatic inheritance of parent thread-local values to a child thread upon child thread creation, wherein a parent thread is associated with the parent's thread-local values, the method comprising:

determining the parent's inheritable thread-local values associated with one or more thread-local variables of the parent thread; and

automatically initializing the child's thread-local values of one or more thread-local variables of the child thread corresponding to the parent's inheritable thread-local values associated with the one or more thread-local variables of the parent thread, upon ~~child~~ creation of the child thread, based on a predetermined child value method.

 [Please **ADD** the following claims:]

34. (New) The method as recited in claim 1, wherein the method is performed in a single processor system.

35. (New) The method as recited in claim 12, wherein the method is performed in a single processor system.

